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EXAMINER
ROSARIO, DENNIS

ART UNIT	PAPER NUMBER
2624	

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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
	10/078,713	NAMIZUKA, YOSHIYUKI
Office Action Summary	Examiner	Art Unit	
	Dennis Rosario	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *RCE 10/25/2006*.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13,15-27,29-40 and 42-44* is/are pending in the application.
     4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-13,15-27,29-40 and 42-44* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *18 August 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
     a)☒ All   b)☐ Some * c)☐ None of:
       1.☒ Certified copies of the priority documents have been received.
       2.☐ Certified copies of the priority documents have been received in Application No. _____.
       3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
     Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

10/25/2006 has been entered.

Response to Amendment

2.   The amendment was received on 10/25/2006. Claims 1-13,15-27,29-40 and 42-

44 are pending.

Response to Arguments

3.   Applicant's arguments, see amendment on pages 18,19, filed 10/25/2006, with

respect to the rejection(s) of claim(s) 1,15 and 29 under 102(b) have been fully

considered and are persuasive. Therefore, the rejection has been withdrawn.

However, upon further consideration, a new ground(s) of rejection is made in view of

Ueta et al. (US Patent 5,748,800 A1) in view of Kawamura et al. (US Patent 6,563,537

B1).

4.   Applicant's arguments on page 21 filed 10/25/2006 have been fully considered

but they are not persuasive and states:

"...even if the Ueta et al. reference and the Kawamura et al. reference are combined, the combined disclosures fail to disclose...the essence of the explicitly recited patentable features of newly amended claims 1,15 and 29."

However, the examiner respectfully disagrees since a combination as suggested does disclose the features of newly amended claim 1,15 and 29 as discussed under 35 USC 103 rejection below.

Claim Rejections - 35 USC § 112

5.   Due to the amendment, the 112 rejection of claims 1-44 are withdrawn.

Drawings

6.   The drawings filed on 8/18/2006 are objected to for the same reasons as the final office action of 4/24/2006. Note that the drawings of 7/24/2006 appear to correct the objections; however, a resubmission of similar drawings filed 8/18/2006 replaced the correct drawings of 7/24/2006. For examination purposes the drawings of 8/18/2006 are being used.

Specification

7.   Due to the amendment the objection to the specification is withdrawn.

Claim Objections

8.   Due to the amendment the objection to claim 41 is withdrawn.

Claim Rejections - 35 USC § 103

9.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

10.   Claims 1-13,15-27 and 29-44 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Ueta et al. (US Patent 5,748,800 A) in view of Kawamura et al. (US

Patent 6,563,537 B1).

Regarding claim 15, Ueta et al. teaches a system of processing image data,

comprising:

a)   an image data input unit (fig. 1, num. 43: CCD LINE SENSOR) for

inputting image data (fig. 1, num. 43: CCD LINE SENSOR captures an image based

upon "user indicat[ion]" or customization in col. 10, lines 34 and 35.);

b)   a space filter process unit (fig. 1,num. 46 is an "edge contrast unit" in col.

3, line 41.) connected (via numerals 59,44,45) to said image data input unit (fig. 1, num.

43: CCD LINE SENSOR) for determining (fig. 3, num. 77: COMPAR. is a comparator.)

whether or not a portion (Fig. 2.num. 43 is a portion of an image.) of the image data (fig.

1, num. 43: CCD LINE SENSOR) is an outline portion (edge portion) to generate an

outline characteristic (Output of fig. 3, num. 77:COMPAR. generates edge data.)

including information (or "difference" in col. 2, line 21) on edges of the outline portion in

the image data; and

    c)   an intensity correction unit or pre-correction unit (fig. 1,num. 45:CCD

SIGANL PROCESSOR performs a shading correction in col. 3, lines 35 and 36.)

connected (via an arrow between numerals 45 and 46.) to said space filter process unit

(fig. 1,num. 46 is an "edge contrast unit" in col. 3, line 41.) for selecting a correction

coefficient (fig. 3,num. 79 is a switch that selects a coefficient from fig. 3,num. 49:

CONT. COEF. INPUT UNIT.) from a set of predetermined correction coefficients (fig. 3,

num. 49: CONT. COEF. INPUT UNIT contains "a preset...coefficient" in col. 4, lines 2-

4.) based upon said outline characteristic (Output of fig. 3, num. 77:COMPAR.

generates edge data that is used by fig. 3,num. 79.); and

    d)   applying the selected correction coefficient (fig. 3,num. 79 is a switch that

selects a coefficient from fig. 3,num. 49: CONT. COEF. INPUT UNIT which is applied

via num. 82.) to the portion (Fig. 2.num. 43 is a portion of an image.) of the image data

(fig. 1, num. 43: CCD LINE SENSOR).

Ueta et al. does not teach the limitation of an outline characteristic including

information on vertical, horizontal, right and left edges of claim 15, but does suggest a

scanning direction to obtain an edge as shown in fig. 2 and suggests other methods of

obtaining an edge using "relative adjacent elements in a spatial arrangement...(col. 11,

lines 3-5)." Thus, Ueta suggest a spatial arrangement can contain a direction between

two elements.

Kawamura et al. teaches the spatial arrangement as suggested by Ueta et al. as shown in fig. 1, label PN2h that shows two horizontal edges with a space between and the remaining limitation of an outline characteristic (or "block pattern" in col. 7, line 29 as shown in fig. 1, labels PN1h,PN1v,PN0,PN2h and PN2v) including information on vertical (fig. 1, labels PN1v and PN2v), horizontal (fig. 1, PN1h,PN2h), right and left edges (correspond to fig. 1, labels PN1h and PN2h which are horizontal edges that contain an "upper left pixel" in col. 8, lines 41 and col. 9, line 1 or "upper right" in col. 9, line 2 which are interpreted as upper left edge pixel or upper right edge pixel since the upper left pixel or the upper right pixel corresponds to a portion of said horizontal edge.).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Ueta et al.'s teaching of a scanning direction and relative adjacent elements with Kawamura et al.'s teaching of determining an edge with direction, because Kawamura et al.'s teaching "properly interpolate[es] image signals having various patterns (Kawamura et al., col. 2, lines 65-67)."

Claim 1 is rejected the same as claim 15. Thus, argument similar to that presented above for claim 15 is equally applicable to claim 1, except that claim 1 is directed towards a method.

Regarding claim 2, Ueta et al. of the combination teaches the method of processing image data according to claim 1 wherein the image data is scanned (fig. 1, num. 43: CCD LINE SENSOR captures an image based upon "user indicat[ion]" or customization in col. 10, lines 34 and 35.).

Claim 3 is rejected the same as claim 11. Thus, argument similar to that

presented above for claim 11 is equally applicable to claim 3.

Regarding claim 4, Ueta et al. of the combination teaches the method of

processing image data according to claim 1 wherein said correction coefficients (fig.

3,num. 79 is a switch that selects a coefficient from fig. 3,num. 49: CONT. COEF.

INPUT UNIT.) include intensity correction coefficients (Fig. 3,num. 49: CONT. COEF.

INPUT UNIT contains coefficients for contrast or sharpness that is based on a "shading

correction" in col. 3, lines 35 and 36. Thus the contrast coefficients contain a shading

value or intensity.).

Claims 5,18 and 19 are rejected the same as claim 4. Thus, argument similar to

that presented above for claim 4 is equally applicable to claims 5,18 and 19.

Regarding claim 6, Ueta et al. of the combination teaches the method of

processing image data according to claim 1 further comprising additional steps of:

a)   an operation unit (fig. 1,num. 57:INTERFACE) connected (via numerals

53,52,51 and 50.) to said space filter process unit(Fig. 1,num. 46) for inputting user

input values (Fig. 3,num. 48: COMP COEF. INPUT UNIT obtains a user input coefficient

in col. 3, lines 65-67.) prior (as shown by the arrows in figure 3.) to said selecting step

(fig. 3,num. 79 is a switch that selects a coefficient from fig. 3,num. 49: CONT. COEF.

INPUT UNIT.); and

b)   selecting said correction coefficient (fig. 3,num. 79 is a switch that selects

a coefficient from fig. 3,num. 49: CONT. COEF. INPUT UNIT.) from said set of said

predetermined correction coefficients (fig. 3, num. 49: CONT. COEF. INPUT UNIT)

based upon said outline characteristic (Output of fig. 3, num. 77:COMPAR. generates

edge data.) and a combination of said user input values (Fig. 3,num. 48: COMP COEF.

INPUT UNIT obtains a user input coefficient in col. 3, lines 65-67 and in inputted to fig.

3,num. 77: COMPAR.).

Regarding claim 7, Ueta et al. of the combination teaches the method of

processing image data according to claim 6 wherein said user input values (Fig. 3,num.

48: COMP COEF. INPUT UNIT obtains a user input coefficient in col. 3, lines 65-67.)

include an intensity notch signal (Fig. 3,num. 48: COMP COEF. INPUT UNIT is a "multi-

position switch" in col. 4, lines 1 and 2.).

Regarding claim 8, Ueta et al. of the combination teaches the method of

processing image data according to claim 6 wherein said user input values (Fig. 3,num.

48: COMP COEF. INPUT UNIT obtains a user input coefficient in col. 3, lines 65-67.)

include an image type signal (Fig. 3, label "IMAGE SIGNAL").

Regarding claim 9, Ueta et al. of the combination teaches the method of

processing image data according to claim 6 wherein said user input values (Fig. 3,num.

48: COMP COEF. INPUT UNIT obtains a user input coefficient in col. 3, lines 65-67.)

include customize data (An image based upon "user indicat[ion]" or customization in col.

10, lines 34 and 35.).

Regarding claim 10, Ueta et al. of the combination teaches the method of processing image according to claim 6 wherein said user input values (Fig. 3,num. 48: COMP COEF. INPUT UNIT obtains a user input coefficient in col. 3, lines 65-67.) include a background removal signal (Fig. 3,num. 49: CONT. COEF. INPUT UNIT receives an user input for correcting contrast or "suppressing contrast... noise" in the abstract.).

Regarding claim 11, Ueta et al. of the combination teaches the method of processing image data according to claim 1 further comprising additional steps of:

a)   further determining an image intensity level (Fig. 1, num. 45: CCD SIGNAL PROCESSOR performs a shading correction in col. 3, lines 34-36.) of the portion (Fig. 2.num. 43 is a portion of an image to be corrected by fig. 1,num. 45: CCD SIGNAL PROCESSOR.) of the image data (fig. 1, num. 43: CCD LINE SENSOR) prior (as shown in fig. 1.) to said applying step (fig. 3,num. 79 is a switch that selects a coefficient from fig. 3,num. 49: CONT. COEF. INPUT UNIT which is applied via num. 82 and corresponds to fig. 1,num. 46.); and

b)   selecting said correction coefficient (fig. 3,num. 79 is a switch that selects a coefficient from fig. 3,num. 49: CONT. COEF. INPUT UNIT.) from said set of said predetermined correction coefficients (fig. 3, num. 49: CONT. COEF. INPUT UNIT) based upon said outline characteristic (Output of fig. 3, num. 77:COMPAR. generates edge data.) and said image intensity level (Fig. 1, num. 45: CCD SIGNAL PROCESSOR performs a shading correction in col. 3, lines 34-36 and is inputted into fig. 1,num. 46.).

Regarding claim 12, Ueta et al. of the combination teaches the method of

processing image data according to claim 11 wherein said predetermined correction

coefficients (fig. 3, num. 49: CONT. COEF. INPUT UNIT contains "a

preset...coefficient" in col. 4, lines 2-4.) are previously stored in a table (Fig. 1,num. 55:

ROM contains "parameters...[that] set the... coefficient...." in col. 10, lines 27-30. Thus,

fig. 1,num. 55: ROM generates a preset coefficient based on parameters.).

Regarding claim 13, Ueta et al. does not teach the limitation of claim 13, but does

suggest a scanning direction to obtain an edge as shown in fig. 2 and suggests other

methods of obtaining an edge using "relative adjacent elements in a spatial

arrangement...(col. 11, lines 3-5)." Thus, a spatial arrangement can contain a direction

between two elements.

However, Kawamura et al. teaches the spatial arrangement as suggested by

Ueta et al. as shown in fig. 1, label PN1h and a method of processing image data

wherein a determining step (fig. 1, label: SECOND JUDGMENT) further determines

whether or not an outline portion (Fig. 1, label: PN1h shows an edge) has a particular

direction (Fig. 1, label: PN1h shows an edge with a horizontal direction as shown.).

It would have been obvious at the time the invention was made to one of ordinary

skill in the art to modify Ueta et al.'s teaching of a scanning direction with Kawamura et

al.'s teaching of determining an edge with direction, because Kawamura et al.'s

teaching "properly interpolate[es] image signals having various patterns (Kawamura et

al., col. 2, lines 65-67)."

Claim 16 is rejected the same as claim 2. Thus, argument similar to that presented above for claim 2 is equally applicable to claim 16.

Regarding claim 17, Ueta et al. of the combination teaches the system for processing image data according to claim 16 further comprising a precorrection unit (Fig. 1,num. 45: CCS SIGANL PROCESSOR performs a shading correction in col. 3, lines 34-36) connected to said scanner (fig. 1, num. 43: CCD LINE SENSOR), and said space filter process unit (fig. 1,num. 46 is an "edge contrast unit" in col. 3, line 41.) for correcting the scanned image data (fig. 1, num. 43: CCD LINE SENSOR captures an image) to generate preprocessed image data (Output of fig. 1,num. 45) prior to outputting the preprocessed image data to said space filter process unit (fig. 1,num. 46).

Claim 20 is rejected the same as claim 6. Thus, argument similar to that presented above for claim 6 is equally applicable to claim 20.

Claims 21 and 22 are rejected the same as claim 7. Thus, argument similar to that presented above for claim 7 is equally applicable to claims 21 and 22.

Claim 23 is rejected the same as claim 9. Thus, argument similar to that presented above for claim 9 is equally applicable to claim 23.

Claim 24 is rejected the same as claim 10. Thus, argument similar to that presented above for claim 10 is equally applicable to claim 24.

Regarding claim 25, Ueta et al. of the combination teaches the system for

processing image data according to claim 15 wherein

a)   said space filter process unit (fig. 1,num. 46 is an "edge contrast unit" in

col. 3, line 41.) further determines an image intensity level (fig. 1,num. 46 shown in

detail in fig. 3 determines an image intensity level at fig. 3,num. 47 based upon a

shaded corrected signal from fig. 1,num. 45.) of the portion (Fig. 2.num. 43 is a portion

of an image.) of the image data (fig. 1, num. 43: CCD LINE SENSOR) prior (as shown

in fig. 1.) to applying (fig. 3,num. 79 is a switch that selects a coefficient from fig. 3,num.

49: CONT. COEF. INPUT UNIT which is applied via num. 82 and corresponds to fig.

1,num. 46.) the selected correction coefficient (fig. 3,num. 79 is a switch that selects a

coefficient from fig. 3,num. 49: CONT. COEF. INPUT UNIT which is applied via num.

82.); and

b)   The remaining limitation was rejected in claim 11.

Regarding claim 26, Ueta et al. of the combination teaches the system for

processing image data according to claim 25 further comprises a storage unit (fig.

3,num. 81: CONT COEF. OUTPUT UNIT stores coefficients.) connected (via numerals

79,77,76,74,75 and 71-73) to said intensity correction unit (Fig. 1,num. 45.) for storing

the predetermined correction coefficients in a table format (fig. 3, num. 49: CONT.

COEF. INPUT UNIT contains "a preset... coefficient" in col. 4, lines 2-4 that are inputted

to storage 81.).

Claim 27 is rejected the same as claim 13. Thus, argument similar to that

presented above for claim 13 is equally applicable to claim 27.

Claim 29 has been addressed in claims 1 and 15 except for the limitation of a storage medium for storing computer readable instructions which are disclosed in Ueta et al. in col. 3, line 60: "programs stored in RAM".).

Claim 30 is rejected the same as claim 2. Thus, argument similar to that presented above for claim 2 is equally applicable to claim 30.

Claim 31 is rejected the same as claim 3. Thus, argument similar to that presented above for claim 3 is equally applicable to claim 31.

Claims 32 and 33 are rejected the same as claim 4. Thus, argument similar to that presented above for claim 4 is equally applicable to claim 32 and 33.

Claim 34 is rejected the same as claim 7. Thus, argument similar to that presented above for claim 7 is equally applicable to claim 34.

Claim 35 is rejected the same as claim 8. Thus, argument similar to that presented above for claim 8 is equally applicable to claim 35.

Claim 36 is rejected the same as claim 9. Thus, argument similar to that presented above for claim 9 is equally applicable to claim 36.

Claim 37 are rejected the same as claim 10. Thus, argument similar to that presented above for claim 10 is equally applicable to claim 37.

Claim 38 is rejected the same as claim 11. Thus, argument similar to that presented above for claim 11 is equally applicable to claim 38.

Claim 39 is rejected the same as claim 12. Thus, argument similar to that presented above for claim 12 is equally applicable to claim 39.

Claim 40 is rejected the same as claim 13. Thus, argument similar to that

presented above for claim 13 is equally applicable to claim 40.

Claims 42-44 are rejected the same as claims 12 and 25. Thus, argument similar

to that presented above for claims 12 and 25 are equally applicable to claims 42-44.

Conclusion

11.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Kantor et al. (US Patent 4,370,641 A) is pertinent as teaching a method of

detecting left,right,horizontal and vertical edges as shown in fig. 8 and using correction

factors. This reference is applicable to claim 1.

Namizuka (US Patent 6,934,057 B1) is pertinent as teaching a similar method as

Kantor et al. This reference is applicable to claim 1.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Dennis Rosario whose telephone number is (571) 272-

7397. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Bhavesh Mehta can be reached on (571) 272-7453. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

$D R$

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